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09/422,998	10/21/1999	DANIEL W. HEPNER	10990763-1	6218

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EXAMINER

PHAM, HUNG Q

ART UNIT PAPER NUMBER

2172

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/422,998

Applicant(s)

HEPNER ET AL.

Examiner

HUNG Q PHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14, 16-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Prosecution Application***

1. The request filed on 11/14/2002 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/422,998 is acceptable and a CPA has been established. An action on the CPA follows.

2. Applicants amended claims 1, 13, and 18, canceled claims 15, and 19, added new claims 21-22. The pending claims are 1-14, 16-18, and 20-22.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-4, 6-10, 13-14, 16-18, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyachi [USP 6,108,492] in view of Sybase [Transact-SQL User's Guide, Copyright 1996].**

Regarding to claim 1, Miyachi teaches a method for providing notification of a technician remote from a machine of the need for machine assistance (Miyachi, Col. 3, lines 43-57). As shown in FIG. 1 is a LAN 100 includes a file server 120, workstations 150, printers 180 and a Host 110b coupled to one another via network communications lines 160 (Miyachi, Col. 4, line 38-Col. 5, line 8). As shown in FIG. 2 is a data processing system comprising the MFP 110a (multifunction peripheral), and the Host 110b. The MFP 110a includes a non-volatile rewritable data storage device 245 for storage of various information, include information regarding the status of operation of the MFP 110a. The Host 110b is responsible for periodically initiating a refresh of a status information database, which is obtained from the MFP 110a and stored in the non-volatile rewritable data storage device 240. (Miyachi, Col. 5, line 9-Col. 8, line 67). As shown in FIG. 4 is a process for retrieving status information of a MFP. After the program has been loaded in step 410, the program allows a technician to select a number of MFP status conditions as shown in Tables 1-2, or the entire database to monitor in step 420. In step 425-430, the technician is allowed to designate a notification method and select a number of trigger conditions. Status information is retrieved, and the Host's MFP status database is updated at steps 440-445. If the process is to continue, then the processor 230 analyzes the status information database in step 455, and determines if any of the trigger conditions have been met in step 460 (Miyachi, Col. 9, line 35-Col. 10, line 57). Thus, the processor 230 receives a trigger condition from a technician as a request for notifying the client the condition of an attribute of MFP, and the technique as discussed indicates the steps of *receiving a*

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*request from a client to notify said client of a condition of an attribute of a system; deriving data about said system attribute to determine if said condition exists.* Miyachi further discloses the step of *upon determining that said condition exists, notifying the client of the existence of said condition* by initiating a notification in step 465 as indicated in the settings received in step 425 (Miyachi, Col. 10, lines 58-65). Miyachi does not disclose: *request comprises information specifying a query for said system attribute; using said query for monitoring said system for existence of said condition of said attribute.* Sybase teaches SQL as a high-level language includes commands for retrieving data from a database, creating database object and other functions (Sybase, Chapter 1: Introduction, Overview). As shown in Chapter 1 is the method of creating SQL statements by using select command. As shown in Chapter 14 is the method of creating trigger conditions by using SQL statements. In addition, Miyachi teaches that: a technician may select some or all of the information to be provided to the technician on the occurrence of a number of trigger conditions. The technician may set the trigger conditions from any of the reportable status conditions. The Host automatically will connect to a remote monitoring computer designated by the technician and provide the selected information (Miyachi, Col. 3, line 60-Col. 4, line 5). Thus, a Miyachi trigger condition indicates a pre-defined SQLs that comprises information specifying a query for said system attribute; and using said query for monitoring said system for existence of said condition of said attribute. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Miyachi method by including the technique of defining a trigger condition by using SQL query as taught by Sybase, and by including the

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Sybase technique, a user-friendly system could be provided to the user by defining a trigger condition via either a SQL query or a pre-defined query.

Regarding to claim 13, Miyachi teaches a computer product for providing notification of a technician remote from a machine of the need for machine assistance (Miyachi, Col. 3, lines 43-57). As shown in FIG. 1 is a LAN 100 includes a file server 120, workstations 150, printers 180 and a Host 110b coupled to one another via network communications lines 160 (Miyachi, Col. 4, line 38-Col. 5, line 8). As shown in FIG. 2 is a data processing system comprising the MFP 110a (multifunction peripheral), and the Host 110b. The MFP 110a includes a non-volatile rewritable data storage device 245 for storage of various information, include information regarding the status of operation of the MFP 110a. The Host 110b is responsible for periodically initiating a refresh of a status information database, which is obtained from the MFP 110a and stored in the non-volatile rewritable data storage device 240. (Miyachi, Col. 5, line 9-Col. 8, line 67). As shown in FIG. 4 is a process for retrieving status information of a MFP. After the program has been loaded in step 410, the program allows a technician to select a number of MFP status conditions as shown in Tables 1-2, or the entire database to monitor in step 420. In step 425-430, the technician is allowed to designate a notification method and select a number of trigger conditions. Status information is retrieved, and the Host's MFP status database is updated at steps 440-445. If the process is to continue, then the processor 230 analyzes the status information database in step 455, and determines if any of the trigger conditions have been met in step 460

(Miyachi, Col. 9, line 35-Col. 10, line 57). Thus, the processor 230 receives a trigger condition from a technician as a request for notifying the client the condition of an attribute of MFP, and the technique as discussed indicates the steps of *receiving from a client a request to notify said client of a condition of an attribute of a system; deriving data about said system attribute; determining from said derived data if said condition exists.*

Miyachi further discloses the step of *upon determining that said condition exists, notifies said client of the existence of said condition* by initiating a notification in step 465 as indicated in the settings received in step 425 (Miyachi, Col. 10, lines 58-65). Miyachi does not disclose: *request comprises information specifying a query for said system attribute; querying said system as specified by said request.* Sybase teaches SQL as a high-level language includes commands for retrieving data from a database, creating database object and other functions (Sybase, Chapter 1: Introduction, Overview). As shown in Chapter 1 is the method of creating SQL statements by using select command. As shown in Chapter 14 is the method of creating trigger conditions by using SQL statements. In addition, Miyachi teaches that: a technician may select some or all of the information to be provided to the technician on the occurrence of a number of trigger conditions. The technician may set the trigger conditions from any of the reportable status conditions. The Host automatically will connect to a remote monitoring computer designated by the technician and provide the selected information (Miyachi, Col. 3, line 60-Col. 4, line 5). Thus, a Miyachi trigger condition indicates a pre-defined SQLs that comprises information specifying a query for said system attribute; and using said query for querying said system as specified by request. Therefore, it would have

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been obvious for one of ordinary skill in the art at the time the invention was made to modify the Miyachi method by including the technique of defining a trigger condition by using SQL query as taught by Sybase, and by including the Sybase technique, a user-friendly system could be provided to the user by defining a trigger condition via either a SQL query or a pre-defined query.

Regarding to claim 18, Miyachi teaches a system for providing notification of a technician remote from a machine of the need for machine assistance (Miyachi, Col. 3, lines 43-57). As shown in FIG. 1 is a LAN 100 includes a file server 120, workstations 150, printers 180 and a Host 110b coupled to one another via network communications lines 160 (Miyachi, Col. 4, line 38-Col. 5, line 8). As shown in FIG. 2 is a data processing system comprising the MFP 110a (multifunction peripheral), and the Host 110b. The MFP 110a includes a non-volatile rewritable data storage device 245 for storage of various information, include information regarding the status of operation of the MFP 110a. The Host 110b is responsible for periodically initiating a refresh of a status information database, which is obtained from the MFP 110a and stored in the non-volatile rewritable data storage device 240. (Miyachi, Col. 5, line 9-Col. 8, line 67). As shown in FIG. 4 is a process for retrieving status information of a MFP. After the program has been loaded in step 410, the program allows a technician to select a number of MFP status conditions as shown in Tables 1-2, or the entire database to monitor in step 420. In step 425-430, the technician is allowed to designate a notification method and select a number of trigger conditions. Status information is



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retrieved, and the Host's MFP status database is updated at steps 440-445. If the process is to continue, then the processor 230 analyzes the status information database in step 455, and determines if any of the trigger conditions have been met in step 460 (Miyachi, Col. 9, line 35-Col. 10, line 57). Thus, the processor 230 receives a trigger condition from a technician as a request for notifying the client the condition of an attribute of MFP, and the technique as discussed indicates: *means for storing a reporting application; a means for executing said reporting application*; wherein reporting application includes computer executable software code for *receiving from a client a request to notify said client application program of a condition of an attribute of a system; determining if said condition exists*. Miyachi further discloses the step of *upon determining that said condition exists, notifies said client of the existence of said condition* by initiating a notification in step 465 as indicated in the settings received in step 425 (Miyachi, Col. 10, lines 58-65). Miyachi does not disclose: *request comprises information specifying a query for said system attribute*. Sybase teaches SQL as a high-level language includes commands for retrieving data from a database, creating database object and other functions (Sybase, Chapter 1: Introduction, Overview). As shown in Chapter 1 is the method of creating SQL statements by using select command. As shown in Chapter 14 is the method of creating trigger conditions by using SQL statements. In addition, Miyachi teaches that: a technician may select some or all of the information to be provided to the technician on the occurrence of a number of trigger conditions. The technician may set the trigger conditions from any of the reportable status conditions. The Host automatically will connect to a remote monitoring computer designated by the technician and provide the

selected information (Miyachi, Col. 3, line 60-Col. 4, line 5). Thus, a Miyachi trigger condition indicates a pre-defined SQLs that comprises information specifying a query for said system attribute; and using said query for querying said system as specified by request. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Miyachi method by including the technique of defining a trigger condition by using SQL query as taught by Sybase, and by including the Sybase technique, a user-friendly system could be provided to the user by defining a trigger condition via either a SQL query or a pre-defined query.

Regarding to claim 2, Miyachi and Sybase teaches all the claimed subject matters as discussed in claim 1 but fails to disclose the step of *generating derived data based upon the result of said query of said system*. However, according to Miyachi, the client may be notified of any of the status conditions or the entire database after the step of status condition selection (Miyachi, Col. 9, lines 39-46), this implies the step of generating derived data based on the result of selection step. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include the step of generating data based on the result of querying in order to display the result in a predefined format.

Regarding to claims 3 and 16, Miyachi and Sybase teaches all the claimed subject matters as discussed in claims 1, 13, Miyachi further discloses: *condition is a change in said attribute* (Miyachi, Col. 9, lines 55-65).

Regarding to claim 4, Miyachi and Sybase teaches all the claimed subject matters as discussed in claim 1, Miyachi further discloses: *the attribute is selected from the group of status of peripheral device, access to local peripherals* (Miyachi, Col. 5, line 57-Col. 8, line 60). Miyachi and Sybase fails to disclose the attribute is selected from the group of: *membership of nodes within a cluster, configuration of a cluster, failure of computer hardware, addition of shared peripherals, removal of shared peripherals, ownership of a shared peripheral, availability of shared peripherals for addition to a cluster, resilience to faults of a High Availability cluster, performance potential of a cluster, and any combination thereof*. However, Miyachi discloses the background of the invention as a local area network (LAN), which linked one or more peripheral devices such as printers, facsimile machines, scanners or plotters and typically, the status of a device (Miyachi, Col. 9, lines 10-24). Thus, the Miyachi status tables as in col. 6-8 can be modified to have the condition state of a node if a user wants to know the condition of a node within a cluster or the configuration of a cluster and even the condition to indicate the failure of computer hardware, addition of shared peripherals, removal of shared peripheral, ownership of a shared peripheral, availability of shared peripherals for addition to a cluster, resilience to faults of a High Availability cluster, performance potential of a cluster. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Miyachi status table in order to query the condition of a network's device especially the condition about the status of a node within a cluster when a new node is added or deleted from the system.

Regarding to claims 6 and 14, Miyachi and Sybase teaches all the claimed subject matters as discussed in claims 1, and 13, Miyachi further disclose: *the status information are stored in a database and a client may select some or all of the information for a predefined trigger condition* (Miyachi, Col. 3, line 60-Col. 4, line 5; Fig. 4, Col. 9, lines 34-47). Sybase further discloses *information specifying a query for said system attribute is an SQL query* as discussed in claims 1, and 13.

Regarding to claim 7, Miyachi and Sybase teach all the claimed subject matters as discussed in claims 6, and 14, Sybase further discloses: *SQL query comprises an SQL view* (Sybase, Chapter 8, Views: Limiting access to Data, Creating Views).

Regarding to claim 8, Miyachi and Sybase teaches all the claimed subject matters as discussed in claim 1, Miyachi further disclose: *the status information are stored in a database and a client may select some or all of the information for a predefined trigger condition* (Miyachi, Col. 3, line 60-Col. 4, line 5; Fig. 4, Col. 9, lines 34-47). Sybase teaches SQL as a high-level language for relational database systems and using query as a request for retrieval of data by using the select command and information specifying a query comprises multiple transactions bracketed together (Sybase, Chapter 1: Introduction, Overview and Queries, Data Modification, and Commands; Chapter 2: Queries: Selecting Data From a Table, What are Queries). Thus, the program that is loaded to step 410 of Miyachi method (Miyachi, Fig. 4, Col. 9, lines 34-47) can use SQL

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as a language for storing status information into the database and the query for system attribute will be an SQL query by using select command that comprises multiple transactions bracketed together. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Miyachi program at step 410 by using SQL as a high level language to write the program in order to have a relational database and to select a status information by an SQL query that comprises multiple transactions bracketed together.

Regarding to claims 9 and 17, Miyachi and Sybase teaches all the claimed subject matters as discussed in claims 1, and 13, Miyachi further discloses: *the status information are stored in a database and a client may select some or all of the information for a predefined trigger condition* (Miyachi, Col. 3, line 60-Col. 4, line 5; Fig. 4, Col. 9, lines 34-47), except the multiple conditions are bracketed together. Sybase teaches SQL as a high-level language for relational database systems and using query as a request for retrieval of data by using the select command and information specifying a query comprises multiple conditions bracketed together (Sybase, Chapter 1: Introduction, Overview and Queries, Data Modification, and Commands; Chapter 2: Queries: Selecting Data From a Table, What are Queries). Thus, the program that is loaded to step 410 of Miyachi method (Miyachi, Fig. 4, Col. 9, lines 34-47) can use SQL as a language for storing status information into the database and the query for system attribute will be an SQL query by using select command that comprises multiple conditions bracketed together. Therefore, it would have been obvious for one of

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ordinary skill in the art at the time the invention was made to modify the Miyachi program at step 410 by using SQL as a high level language to write the program in order to have a relational database and to select a status information by an SQL query that comprises multiple conditions bracketed together.

Regarding to claim 10, Miyachi and Sybase teach all the claimed subject matters as discussed in claim 9, Miyachi further discloses a client may select particular values for a trigger notification. For example, the client will be notified when a counter fuser reaches a particular value (Miyachi, Col. 9, lines 55-65). Miyachi fails to disclose the multiple changes are bracketed together. By using SQL as a high level language, Sybase teaches the condition that trigger a notification in "if update" clause, in which multiple changes are bracketed together (Sybase, Chapter 14, Triggers: Enforcing Referential Integrity, Creating Triggers). Thus, the Miyachi program can use SQL to implement the step of trigger notification by bracketing multiple changes together and if the changes exist, the client will be notified. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Miyachi program by using SQL as a high level language to write the program in order to have a relational database and to have a trigger notification when a condition comprises multiple condition bracketed together.

Regarding to claim 20, Miyachi and Sybase teaches all the claimed subject matters as discussed in claim 18, Sybase further discloses the system comprises:

*multiple nodes, wherein at least one of said nodes is executing said reporting application*  
(Miyachi, Fig. 1-2, Col. 4-5).

Regarding to claim 21, Miyachi and Sybase teaches all the claimed subject matters as discussed in claim 13, Miyachi further discloses the step of *periodically querying the system* (Miyachi, Col. 10, lines 14-21).

Regarding to claim 22, Miyachi and Sybase teaches all the claimed subject matters as discussed in claim 18, Miyachi further discloses the step of *monitoring system to determine if said condition exist* (Miyachi, Col. 5, lines 57-65).

**5. Claims 5, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyachi [USP 6,108,492] in view of Sybase [Transact-SQL User's Guide, Copyright 1996] and Onaga [USP 6,266,693 B1].**

Regarding to claim 5, Miyachi and Sybase teaches all the claimed subject matters as discussed in claim 1, but fails to disclose: *client is selected from the group consisting of a user and a client application program*. Onaga teaches a method for monitoring status of multifunction peripherals (Onaga, Col. 1, lines 25-30). Onaga further discloses four classes of users and each of these classes is given access to different classes of peripheral settings and features or *client is selected from the group consisting of a user and a client application program*. Therefore, it would have been

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obvious for one of ordinary skill in the art at the time the invention was made to include the step of selection of client from the group of a user and a client application program into the Miyachi and Sybase method in order to control the access of client.

Regarding to claim 11, Miyachi and Sybase teaches all the claimed subject matters as discussed in claim 1, but fails to disclose: *client is a graphical user interface (GUI) that displays information to a human user*. Onaga teaches a method for monitoring status of multifunction peripherals (Onaga, Col. 1, lines 25-30). Onaga further discloses *client is a graphical user interface (GUI) that displays information to a human user* (Onaga, FIG. 9). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Miyachi method to have a graphical user interface in order to display information to a user.

Regarding to claim 12, Miyachi, Sybase, and Onaga teaches all the claimed subject matters as discussed in claim 11, but fails to teach the step of deriving data to determine if a condition of said one or more attributes exists such that the GUI should redraw the graphics displaying said information about said one or more attributes. Sybase teaches retrieving data through views by using SQL, the SQL server checks to make sure that all the database objects exist and create a view that includes all the attributes as indicated in the condition of the query (see Chapter 8, Views, Limiting Access to Data, What are Views?, Retrieving Data through Views). Thus, the Miyachi, Sybase, and Onaga method can use SQL to implement the step of condition



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determination and graphic redrawing to make sure the attributes exist and provide a view for these attributes. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Miyachi, Sybase, and Onaga method by applying SQL to implement the steps of condition determination and graphic redrawing to determine if a condition of one or more attributes exists such that GUI could redraw the graphic displaying.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Pham whose telephone number is 703-605 4242. The examiner can normally be reached on Monday-Friday, 7:00 Am - 3:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VU, KIM YEN can be reached on 703-305 4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746 7239 for regular communications and 703-746 7238 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305 3900.

Examiner: Hung Pham  
December 31, 2002

  
KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100